NNN NNN NNN NNN NNN NNNNN NNNNNN NNNNNN		EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE		AAA AAA AAA AAA	AAA AAA AAA AAA	CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	FPP PPP PPP PPP PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP	PPP PPP PPP PPP PPP
NNN	NNN NNN NNN NNN NNN NNN	EEEEEEEEEEE EEE EEE EEE EEE EEE EEE EE		AAAAAAAAAA AAA AAA AAA AAA	AAA AAA AAA	CCC CCC CCC CCC CCC CCC	PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP	
NNN	NNN	EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE		AAA	AAA AAA		PPP PPP PPP	

NE

NE

Ps NE

ME

8.

NI

NN NN NN NN NN NN NNNN NN NNNN NN NN NN NN NN NN NN NN	EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE	TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	\$	RRRRRRRR RRRRRRRR RR RR RR RR RR RR RRRRRR
\$	DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD	<pre> !! !! !! !! !! !! !! !! !! !! !! !! !!</pre>		

.

```
NETUSR.SDL - system definitions for NETWORK ACP interface
```

Version:

'V04-000'

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FACILITY: VAX/VMS System Macro Libraries

ABSTRACT:

{++

This file contains the SDL source for NETWORK control blocks.

ENVIRONMENT:

n/a

AUTHOR: The VMS Group CREATI

CREATION DATE: 1-Aug-1976

MODIFICATION HISTORY:

VO24 RNGOO24 Rod Gamache 28-Feb-1984 Add IPID field for LLI database.

V023 MKP0001 Kathy Perko 06-Dec-1983 Add Node parameter, SERVICE NODE VERSION, for down line load.

V022 TMH0022 Tim Halvorsen 04-Jul-1983 Add XAI database for X.25 gateway support. Add LNI ALIAS (cluster node name) parameter.

VO21 TMH0021 Tim Halvorsen 20-Apr-1983

Add Service (DLE) database.

V020 RNG0020 Rod Gamache 18-Apr-1983 Reserve some more 'database' codes for PSI.

V019 TMH0019 Tim Halvorsen 04-Mar-1983 Add DEVNAM circuit parameter (action routine).

V018 TMH0018 Tim Halvorsen 14-Feb-1983 Add line buffer size parameter.

V017 TMH0017 Tim Halvorsen 07-Dec-1982
Add 'Next node to destination' node name, as well as the node number which is already a parameter.
Add Ethernet protocol type parameter, so that Phase IV can be used with another protocol type on the NI.

V016 TMH0016 Tim Halvorsen 05-Nov-1982 Add area database.

V015 TMH0015 Tim Halvorsen 23-Sep-1982 Add adjacency database.

V014 TMH0014 Tim Halvorsen 30-Jun-1982 Update Phase IV line, circuit and node parameters. Add line action routine to get the physical device name being used by a line (including unit number). Add LOOP LINE parameters and function code. Change DEST SAD from a string to a longword. Change DEST NODE from a string to a longword.

V013 TMH0013 Tim Halvorsen 16-Jun-1982
Add SPI (Server Process) database and parameters.
Add DECLSERV function code.
Make NFB\$C_LENGTH equal to NFB\$L_FLDID, and not te
4 bytes afterwards, since it should be possible to
issue a ACPCONTROL function with NO fields, and without
any ENDOFLIST field (since it isn't required anymore).

V012 TMH0012 Tim Halvorsen 04-Apr-1982
Remove STRT_KEY. Remove ERR_STRT detail code.
Remove NFB\$C_CULLATE generic field ID.
Increase size of P2 context area to 64 bytes.
Remove obsolete function codes.
Rename most of the symbols and fields to make the interface more understandable:

NFB\$V_KNO --> NFB\$V_MULT
NFB\$V_UPD --> NFB\$V_ERRUPD
NFB\$V_NOUPD --> NFB\$V_NOCTX
NFB\$C_P2STRTLNG --> NFB\$C_CTX_SIZE
Move \$NDBDEF To NETCTL.MDL

Move \$NDBDEF to NETCTL.MDL
Add CNT (counters) parameter for XDI, XS5 and XS9 databases.
Remove fields which were commented out.
Fix classification of CRI/PLI parameters in comment field.
Add key and oper fields for second search key.
Remove obsolete NUL parameters from all databases.

Add Ethernet parameters.
Remove obsolete FNDNEXT operator, and make FNDMIN and FNDMAX unavailable through the QIO interface, since they don't work.
Add ERR_P5 and ERR_P6 error detail codes, so that they can be returned if P5 or P6 were specified.
Add circuit DLM flag, to indicate X.25 DLM access (corresponds to the NICE OWNER parameter).
Add ERR_FLAGS and ERR_OPER2 error detail codes.
Add symbols to make accessing field IDs and values easier for BLISS programs.
Add DTE MAXIMUM CIRCUITS parameter.

V3-011 TMH0011 Tim Halvorsen 25-Feb-1982 Add X.25 parameters.

V3-010 ADE0033 A.Eldridge 01-Mar-1982 Increased NFB\$C_DB_MAX to allow access to the X25 databases.

V3-009 ADE0032 A.ELdridge 15-Feb-1982 Added 'pipeline quota' (PIQ) to the LNI database

V3-008 ADE0031 A.Eldridge 06-Jan-1982 Removed the 'retransmit timer' (RTT) from the circuit database.

V3-007 ADE0030 At Eldridge 30-Nov-1981 Added support for proxy logins

v3-006 ??

V3-005 ADE0005 AL Eldridge 2-Sep-1981 Update NFBDEF to get rid of overlapping symbols

V3-004 TMH0004 Tim Halvorsen 30-Aug-1981 Get rid of obsolete definitions and add \$NFBDEF.

(---

aggregate NFBDEF structure fill prefix NFB\$; fCT byte unsigned:

constant(DECLNAME , DECLOBJ DECLSERV) equals 21 increment 1 prefix NFB tag \$C;

constant(LOGEVENT . READEVENT

DB

P1

P5

/* (leaving room for 20 obsolete function codes) /* Declare name /* Declare object /* Declare server process available /* Resume defining function codes /* (leave room for 4 obsolete function codes)

/* Log a network event /* Read current raw event queue (used by EVL only)

```
) equals 28 increment 1 prefix NFB tag $C:
                                                                           /* Resume defining function codes
/* (leave room for 3 obsolete function codes)
constant(
     FC_DELETE
, FC_SHOW
, FC_SET
, FC_CLEAR
, FC_ZERCOU
, FC_LOOP
                                                                           /* Remove an entry from the data base.
/* Return specified field values.
                                                                           /* Set/modify the field values.
/* Clear specified field values.
                                                                           /* Zero (and optionally read) counters
/* Loop (used only to PSI to loop an X.25 line)
      ) equals 33 increment 1 prefix NFB tag $C;
                                                                           /* Maximum FCT value
constant FC_MAX
                            equals NFB$C_FC_LOOP prefix NFB tag $C;/* Maximum FCT value
FLAGS_OVERLAY union fill:
      FEAGS byte unsigned;
                                                                           /* Miscellaneous control flags
      FLAGS_BITS structure fill;
           ERRUPD bitfield mask;
                                                                           /* Update position context, even on error
           MULT bitfield mask:
                                                                           /* Process as many entries as can be fit into P4
           NOCTX bitfield mask:
                                                                           /* Don't update position context, even if successful
                                                                          /* (used to stay on an entry for a while). This
/* flag overrides the ERRUPD flag.
     end FLAGS_BITS;
end FLAGS_OVERLAY;
DATABASE byte unsigned:
                                                                           /* A code identifying the database as follows:
                                                                          /* ZERO is an illegal value for this field
constant(
        LNI
                                                                           /* Local node
        NDI
                                                                           /* Common nodes
        OBI
                                                                           /* Network objects
        CRI
                                                                           /* Circuits
        PLI
                                                                           /* Lines
        EF I
                                                                           /* Event logging filters
                                                                          /* Event logging filter
/* Event logging sinks
/* Logical-links
/* X.25 networks
/* X.25 groups
/* X.25 DTEs
/* X.25 server
/* X.25 destinations
/* X.29 server
/* X.29 trace facility
/* X.25 tracepoints
/* Server Process
        ESI
        LLI
        XNI
        XGI
        XDI
        XS5
        XD5
        XS9
        XD9
        XTI
        XTT
        SPI
                                                                           /* Server Process
      . AJI
                                                                           /* Adjacency information
      ARI
                                                                           /* Area information
                                                                          /* (The following codes are reserved for future PSACP
/* databases. These codes should only be used in the
/* event PSIACP needs a database code before a new
                                                                           /* new NETACP can be supplied to support it).
/* PSI reserved database
      , PSI1
      , PS12
                                                                           /* PSI reserved database
      . PS13
                                                                           /* PSI reserved database
```

```
/* PSI reserved database
/* PSI reserved database
     . PS15
     , SDI
                                                                  /* Service (DLE) information
                                                                  /* X.25 access database
     , XAI
       XXX
                                                                  /* Last database definition for NFB$C_DB_MAX calc.
     ) equals 1 increment 1 prefix NFB$C_ tag DB;
                                                                  /* Maximum DATABASE value
                         equals NFB$C_DB_XXX-1 prefix NFB$C_ tag DB:/* Maximum DATABASE value /* Specifies the sense of the search_(e.g. EQL, GEQU)
constant MAX
OPER byte unsigned:
                                                                  /* when comparing against the SRCH_KEY field.
constant(
                                                                  /* March if SEARCH_KEY value EQL database entry field 
/* Match if SEARCH_KEY value GTRU database entry field 
/* Match if SEARCH_KEY value LSSU database entry field 
/* Match if SEARCH_KEY value NEQ database entry field
       EQL
     , ĞTRU
     . LSSU
     , NEQ
                                                                  /* The following may only be used internally by NETACP
/* Find entry with minimum key value
     , FNDMIN
     , FNDMAX
                                                                  /* Find entry with maximum key value
     , FNDPOS
                                                                  /* find entry position in database
     ) equals 0 increment 1 prefix NFB$C_ tag OP;
                                                                /* Maximum operator function
                         equals NFB$C_OP_NEQ prefix NFB$C_ tag OP;/* Maximum operator function equals NFB$C_OP_FNDPOS prefix NFB$C_ tag OP;/* Maximum internal function
constant MAXFCT
constant MAXINT
                                                                  /* Search key field identifier specifying_the key used
SRCH_KEY longword unsigned;
                                                                  /* to locate the entry in the database. This search is
                                                                  /* controlled by the sense of the NFB$B OPER field.
                                                                  /* If this field has the value 'NFB$C_WILDCARD', then
                                                                  /* the very next entry in the list is assumed to be the
                                                                  /* target of the search.
                                                                  /* If this field is not specified (zero), then it
                                                                  /* is assumed to be NFB$C_WILDCARD (no search key).
                                                                  /* Secondary search key field ID specifying the key used
/* to locate the entry in the database. This search is
SRCH2_KEY longword unsigned:
                                                                  /* controlled by the sense of the NFB$B_OPER2 field.
                                                                  /* If both SRCH_KEY and SRCH2_KEY are specified, then
                                                                  /* only those database entries matching both search keys
                                                                  /* will be processed.
                                                                  /* If this field is not specified (zero), then it
                                                                  /* is assumed to be NFB$C_WILDCARD (no search key).
OPER2 byte unsigned:
                                                                  /* Specifies the sense of the search (e.g. EQL, GEQU)
                                                                  /* when comparing against the SRCH2_KEY field.
                                                                  /* Reserved. MBZ
MBZ1 byte unsigned;
CELL_SIZE word unsigned; constant 'LENGTH' equals . prefix NFB$ tag K; constant 'LENGTH' equals . prefix NFB$ tag C;
                                                                  /* Some of the field values found in the P4 buffer are
                                                                  /* Minimum structure size.
                                                                  /* Minimum structure size.
                                                                  /* counted strings. If the "cell size" is non-zero, it
                                                                  /* indicates the number of bytes which each string in
/* the P4 buffer occupies. If it is zero then strings
```

```
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                                                                /* fields are stored as variable lengthed strings.
    FLDID longword unsigned:
                                                                /* Cell containing the first field ID -- the list
                                                                 /* of field IDs begins here and continues to the
                                                                /* end of the structure.
                                                                /* The list may be terminated before the end of the
                                                                /* structure by placing the value NFB$C_ENDOFLIST
/* in the longword following the last field ID.
                                                                /*
                                                                            Define the "field i.d." format.
end NfBDEf:
aggregate NFBDEF1 union fill prefix NFB$;
    PARAM_ID longword unsigned;
                                                                /* Define parameter ID longword
         PARAM_ID_BITS structure fill;
              INX Bitfield mask length 16;
                                                                /* Index into semantic table
              TYP bitfield mask length 2;
                                                                /* Field type (string, bit, etc.)
              SPARE bitfield mask length 6;
                                                                /* Reserved, MBZ
              DB bitfield mask length 8:
                                                                /* Data-base i.d.
         end PARAM_ID_BITS;
constant TYP_BIT equals 0 prefix NFB
constant TYP_V equals 0 prefix NFB tag $C;
                                     equals 0 prefix NFB tag $C;/* Field type for bits
                                                                /* Field type for bits
        constant TYP_LNG equals 1 prefix NFB constant TYP_L equals 1 prefix NFB tag $C; constant TYP_STR equals ? prefix NFB tag $C; constant TYP_S equals 2 prefix NFB tag $C;
                                    equals 1 prefix NFB tag $C;/* Field type for longwords
                                                                /* Field type for longwords
                                    equals ? prefix NFB tag $C;/* field type for strings
                                                                /* field type for strings
     Define useful symbols for storing and retreiving binary and string
     values from the P2 and P4 buffers
end NFBDEF1:
aggregate NFBDEF2 union fill prefix NFB$;
    LNG_VALUE longword unsigned;
                                                                /* Longword value
end NFBDEF2:
aggregate NFBDEF3 union fill prefix NFB$;
    BIT_VALUE longword unsigned:
                                                                /* Boolean value
end NFBDEf3;
aggregate NFBDEF4 union fill prefix NFB$;
                                                                /* String count field
    STR_COUNT word unsigned;
         STR_COUNT_FIELDS structure fill:

FILL_T byte dimension 2 fill prefix NFBDEF tag $$;
                                                                /* Start of string data
             STR_TEXT character length 0 tag B;
    Define identifiers for each parameter in all database
     ** The low order 16 bits for each parameter must be unique **
    *** with respect to all other parameters in its particular ***
```

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/* ** database. **

N

```
Define a field identifier index for each parameter in the NDI database.
                                                     Boolean parameters
constant(
      LCK
                                               /* Set if conditionally writable fields are not writable
/* Set if CNF is for a 'loopback' node
/* Set if node is reachable
    , L00
      REA
    ) equals (((NFB$C_DB_NDI@24)+(NFB$C_TYP_BIT@16)+1)) increment 1 prefix NFB$C_N tag DI;
                                                     "Longword" Parameters
constant(
      TAD
                                                /* "transformed address" - uses local node address
                                                /* for the local NDI (instead of zero as does ADD)
                                                /* Absolute due time for logging counters
      ADD
                                                /* Address
      CTI
                                                /* Counter timer
                                                /* Active links
      ACL
      DEL
                                                /* Delay
                                                /* Destination Type
      DTY
                                                /* Destination Cost
      DCO
      DHO
                                                /* Destination Hops
      SDV
                                                   Service Device
                                                /* CPU type
      CPU
      STY
                                                /* Software type
      DAD
                                                /* Dump address
      DCT
                                                /* Dump count
      040
                                                /* Host
      IHO
                                                /* Host
      ACC
                                                /* Access switch (inbound, outbound, etc)
      PRX
                                                /* ** obsolete ** (Node proxy parameter)
      NND
                                                /* Next node address
      SNV
                                                /* Service Node Version
    ) equals (((NFB$C_DB_NDIa24)+(NFB$C_TYP_LNGa16)+16)) increment 1 prefix NFB$C_N tag DI;
                                                     String parameters
constant(
      COL
                                                /* Collating field
      HAC
                                                /* Node address/loop linename combination
      CNT
                                                /* Counters
      NNA
                                                /* Name
      SLI
                                                /* Service line
      SPA
                                                /* Service password
      LOA
                                                /* Load file
      SLO
                                                /* Secondary loader
      TLO
                                                /* Tertiary loader
      SID
                                                /* Software ID
                                                /* Dump file
      DUM
```

```
NETUSR.SDL;1
```

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```
Define a field identifier index for each parameter in the LNI database.
                                                          Boolean parameters
constant(
      LCK
                                                    /* Set if conditionally writable fields are not writable
    SUP /* Set if area numbers are to be suppressed ) equals (((NFB$C_DB_LNIa24)+(NFB$C_TYP_BITa16)+1)) increment 1 prefix NFB$C_L tag NI;
                                                          'Longword parameters
constant(
      ADD
                                                    /* Address
                                                    /* Total number of active links
                                                    /* Incoming timer
/* Outgoing timer
      ITI
      OTI
                                                    /* State
                                                    /* Maximum links
     . MLK
                                                    /* Delay factor
/* Delay weight
/* Inactivity timer
/* Retransmit factor
     . DFA
     . DWE
     , IAT
     RFA
                                                   /* Executor Type
/* Routing timer
/* Routing suppression timer
/* Subaddress
    ETY
    RTI
    , RSI
     SAD
                                                    /* (lower word = lower limit, upper word = upper limit)
    . MAD
                                                    /* Maximum address
                                                    /* Maximum lines
    MLN
    . MCO
                                                    /* Maximum cost
     . MHO
                                                    /* Maximum hops
      MVI
                                                    /* Maximum visits
      MBU
                                                    /* Maximum buffers
                                                    /* Forwarding buffer size
      BUS
      LPC
                                                    /* Loop count
      LPL
                                                    /* Loop length
      LPD
                                                    /* Loop Data type
      DAC
                                                    /* Default access switch (inbound, outbound, etc)
                                                    /* Default proxy access (inbound, outbound, etc)
      DPX
      PIQ
                                                    /* Pipeline quota
                                                    /* Loop help type of assistance given to loop requestors
/* Broadcast routing timer
      LPH
      BRT
                                                    /* Maximum areas
      MAR
      MBE
                                                    /* Maximum nonrouters on NI
      MBR
                                                    /* Maximum routers on NI
                                                    /* Area maximum cost
      AMC
      AMH
                                                    /* Area maximum hops
      SBS
                                                    /* Segment buffer size
                                                    /* Alias local node address (cluster address)
      ALI
    ) equals (((NFB$C_DB_LNI@24)+(NFB$C_TYP_LNG@16)+16)) increment 1 prefix NFB$C_L tag NI;
```

/*

```
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/* String parameters
/* Collating field
/* Local node name
/* Counters
/* IDE
/* Identification
/* MVE
/* Management version
/* NSP version
/* Routing version
/* Routing version
/* Physical NI address (current address)
/* equals (((NFBSC_DB_LNI@24)+(NFBSC_TYP_STR@16)+64)) increment 1 prefix NFBSC_L tag NI;
```

```
/* Define a field identifier index for each parameter in the OBI database.
                                                        /*
                                                         /*
                                                              Boolean Parameters
constant(
                                                        /* Set if conditionally writable fields are not writable
/* Set if a "set" QIO has ever modified the CNF. If
/* not then the CNF was due to a "declare name/obect"
/* only and may be deleted when the declaring process
       LCK
     . SET
                                                        /* breaks the channel over which the object was declared
    ) equals (((NFB$C_DB_OBI@24)+(NFB$C_TYP_BIT@16)+1)) increment 1 prefix NFB$C_O tag BI;
                                                         /*
                                                              Longword Parameters
constant(
       LPR
                                                        /* Low order privileges
       HPR
                                                         /* High order privileges
       UCB
                                                         /* Owner's UCB address
                                                         /* Owner's channel
       CHN
       NUM
                                                         /* Number
     , PID
                                                         /* Process id
     /* Proxy login switch (inbound, outbound, etc)
   equals (((NFB$C_DB_OBI@24)+(NFB$C_TYP_LNG@16)+16)) increment 1 prefix NFB$C_O tag BI;
                                                         / *
                                                              String Parameters
constant(
                                                        /* Collating field
       COL
                                                        /* Zero obj*name identifier
/* Parsed file i.d.
       ZNA
       SFI
       IAC
                                                         /* Default inbound combined access control string
       NAM
                                                         /* Name
       FID
                                                         /* File id
       USR
                                                         /* User id
       ACC
                                                         /* Account
       PSW
                                                         /* Password
     ) equals (((NFB$C_DB_OBI@24)+(NFB$C_TYP_STR@16)+64)) increment 1 prefix NFB$C_0 tag BI;
```

```
Define a field identifier index for each parameter in the CRI database.
                                                /////////
                                                                             /* Use
                                                                             /* ----
                                                                             C = common
                                                                             E = Executor (used by Transport)
X = Native X.25 network management
                                                                             D = DECnet (not X.25)
                                                      Boolean Parameters
constant(
                                                /* D Set if conditionally writable fields are
      LCK
                                                           not writable
                                                /* D Set if Service functions not allowed
    BLK
                                                /* E Blocking
    , VER
                                                /* D Transport verification requested if set
/* E Circuit to be used as X.25 datalink, if set
    . DLM
                                                           If clear, circuit is for X.25 native use
    ) equals (((NFB$C_DB_CRI@24)+(NFB$C_TYP_BIT@16)+1)) increment 1 prefix NFB$C_C tag RI;
                                                      "Longword" parameters
constant(
      OWPID
                                                /* D PID of temp owner of line in service state
      CTA
                                                /* D Absolute due time for counter logging
      SRV
                                                /* D Service substate qualifier
      STA
                                                /* C State
      SUB
                                                /* C Substate
      LCT
                                                /* C Counter timer
                                                /* E Adjacent node address
      PNA
                                                /* E Partner's receive block size
      BLO
      COS
                                                /* E Cost
      HET
                                                /* E Hello timer
      LIT
                                                /* E Listen timer
      MRC
                                                /* E Maximum recalls
      RCT
                                                /* E Recall timer
                                                /* D Polling state
      POL
      PLS
                                                /* D Polling substate
      USE
                                                /* X Usage
                                                /* C Type
/* X X.25 Channel
      TYP
      CHN
      MBL
                                                /* X Maximum block
      MUI
                                                /* X Maximum window
      TRI
                                                /* D Tributary
      BBT
                                                /* D Babble timer
    , TRT
                                                /* D Transmit timer
    , MRB
                                                /* D Maximum receive buffers
    , MTR
                                                /* D Maximum transmits
    , ACB
                                                /* D Active base
    , ACI
                                                /* D Active increment
```

```
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               , IAB
                                                   /* D Inactive base
                IAI
                                                   /* D Inactive increment
                                                   /* D Inactive threshold
                IAT
                                                   /* D Dying base
                DYB
                DYI
                                                   /* D Dying increment
                DYT
                                                   /* D Dying threshold
                DTH
                                                   /* D Dead threshold
                MST
                                                   /* D Maintenance mode state (0 => On, 1 => Off>
                XPT
                                                   /* E Transport protocol to use
                MRT
                                                   /* E Maximum routers on this NI
              , RPR
                                                   /* E Router priority
              String Parameters
           constant(
                COL
                                                   /* D Collating field
                NAM
                                                   /* C Circuit name
                VMSNAM
                                                   /* D Device name in VMS format
               CHR
                                                   /* D Characteristics buffer for startup control QIO
                CNT
                                                   /* C Counters
                P2P
                                                   /* D Line's PhaseII partner name (for Loopback)
                L00
                                                   /* E Loopback name
                PNN
                                                   /* E Adjacent node name
                NUM
                                                   /* X Call Number
                                                   /* X DTE
                DTE
                DEVNAM
                                                   /* D Device name in VMS format, with unit included
              ) equals (((NFB$C_DB_CRI@24)+(NFB$C_TYP_STR@16)+64)) increment 1 prefix NFB$C_C tag RI;
```

```
Define a field identifier index for each parameter in the PLI database.
                                              ////////
                                                                         C = common
                                                                         L = LAPB (X.25)
                                                                         \bar{D} = DDCMP (not X.25)
                                                                         E = Ethernet
                                                                         /* Use
                                              /*
                                                   Boolean Parameters
constant(
                                              /* D Set if conditionally writable fields are
      LCK
                                              /*
                                                        not writable
                                              /* D Service
    . DUP
                                              /* C Duplex (set if half)
    , CON
                                              /* C Controller (set if loopback)
                                              /* C Clock mode (set if internal)
      CLO
    ) equals (((NFB$C_DB_PLI@24)+(NFB$C_TYP_BIT@16)+1)) increment 1 prefix NFB$C_P tag LI;
                                                   "Longword" Parameters
constant(
      CTA
                                              /* D Absolute time for counter read and clear
                                              /* C State
      STA
      SUB
                                              /* C Substate
      LCT
                                              /* D Counter timer
                                              /* C Protocol
      PRO
      STI
                                              /* D Service timer
      HTI
                                              /* L Holdback timer
      MBL
                                              /* L Maximum block
      MRT
                                              /* L Maximum retransmits
      MUI
                                              /* L Maximum window
      SLT
                                              /* D Scheduling timer
      DDT
                                              /* D Dead timer
      DLT
                                              /* D
                                                  Delay timer
      SRT
                                              /* D Stream timer
      BFN
                                              /* D Receive buffers
      BUS
                                              /* D Action routine returns bufsiz used for line
      PLVEC
                                              /* D PLVEC i.d.
      RTT
                                              /* D Retransmit timer
                                              /* L X.25 mode (DCE, DTE, etc).
      LPC
                                              /* L Loop count
                                              /* L Loop length
      LPD
                                              /* L Loop Data type
      EPT
                                              /* E Ethernet protocol type for datalink
                                              /* C Line buffer size (overrides executor bufsiz)
    ) equals (((NFB$C_DB_PLI@24)+(NFB$C_TYP_LNG@16)+16)) increment 1 prefix NFB$C_P tag L1;
                                                   String Parameters
```

1

/* User name

/* Partner's node name
 RID
/* Partner's process i.d.
) equals (((NFB\$C_DB_LLI@24)+(NFB\$C_TYP_STR@16)+64)) increment 1 prefix NFB\$C_L tag LI;

/* Process name

constant(

constant(

DLY

RLN

PNA

PID

CNT

COL

USR

PRC

, XWB

constant(

IPID

```
/* Define a field identifier index for each parameter in the LLI database.
                                            /+
                                             /*
                                                  Boolean Parameters
  LCK /* Set if conditionally writable fields are not writable ) equals (((NFB$C_DB_LLIa24)+(NFB$C_TYP_BITa16)+1)) increment 1 prefix NFB$C_L tag LI;
                                                  Longword Parameters
                                            /* Round trip delay time
                                             /* State
                                             /* Local link number
                                             /* Remote link number
                                             /* Partner's node address
                                             /* External Process I.D.
                                             /* Internal Process I.D.
                                             /* Pointer to XWB
                                             /* Counters
) equals (((NFB$C_DB_LLI@24)+(NFB$C_TYP_LNG@16)+16)) increment 1 prefix NFB$C_L tag LI;
                                                   tring Parameters
                                            /* Collating field
```

N

```
K 2
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NETUSR.SDL:1
                                                               /* X.25 DTE parameters (qualified by a given network)
                                                               /* Define a field identifier index for each parameter in the XDI database.
                                                               /*
                                                               /*
                                                               /*
                                                                     Boolean Parameters
             constant(
                  LCK
/* Set if conditionally writable fields are not writable equals (((NFB$C_DB_XDI@24)+(NFB$C_TYP_BIT@16)+1)) increment 1 prefix NFB$C_X tag DI;
                                                                     "Longword" Parameters
             constant(
                    ACH
                                                               /* Active channels
                    ASW
                                                               /* Active switched
                                                               /* Counter timer
                    MCH
                                                               /* Maximum channels
                                                               /* State
                    SUB
                                                               /* Substate
                  /* Maximum circuits [VMS only]
) equals (((NFB$C_DB_XDI@24)+(NFB$C_TYP_LNG@16)+16)) increment 1 prefix NFB$C_X tag DI;
                                                                     String Parameter&
             constant(
                    COL
                                                               /* Collating field
                                                               /* DTE address
                    DTE
                    CHN
                                                               /* Channels
                    LIN
                                                               /* Line
                    NET
                                                               /* Network
                    CNT
                                                               /* Counters
                  j equals (((NFB$C_DB_XDI@24)+(NFB$C_TYP_STR@16)+64)) increment 1 prefix NFB$C_X tag DI;
```

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```
/* X.25 group parameters (qualified by a given DTE)
                                                      /* Define a field identifier index for each parameter in the XGI database.
                                                      /+
                                                            Boolean Parameters
constant(
     LCK
/* Set if conditionally writable fields are not writable
) equals (((NFB$C_DB_XGI@24)+(NFB$C_TYP_BIT@16)+1)) increment 1 prefix NFB$C_X tag GI;
                                                            "Longword" Parameters
constant(
                                                      /* Group number
       GNM
     /* Group type

/* Group type

> equals (((NFB$C_DB_XGI@24)+(NFB$C_TYP_LNG@16)+16)) increment 1 prefix NFB$C_X tag GI;
                                                            String Parameters
constant(
                                                      /* Collating field. This field must be unique across
/* all entries in this database. It consists of the
       COL
                                                      /* group-name string followed by the DTE address.
/* Group name
       GRP
       GDT
                                                      /* Group DTE address
    ) equals (((NFB$C_DB_XGIa24)+(NFB$C_TYP_STRa16)+64)) increment 1 prefix NFB$C_X tag GI;
```

```
M 2
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NETUSR.SDL:1
                                                              /* X.25 server parameters (global parameters for all destinations)
                                                                 Define a field identifier index for each parameter in the XS5 database.
                                                                   Boolean Parameters
             constant(
                 LCK /* Set if conditionally writable fields are not writable ) equals (((NFB$C_DB_XS5a24)+(NFB$C_TYP_BITa16)+1)) increment 1 prefix NFB$C_X tag S5;
                                                                    "Longword" Parameters
             constant(
                    MCI
                                                              /* Maximum circuits allowed
                                                              /* State
                 , ACI
                                                              /* Active circuits
                 CTM /* Counter timer
) equals (((NFB$C_DB_XS5a24)+(NFB$C_TYP_LNGa16)+16)) increment 1 prefix NFB$C_X tag S5;
                                                                   String Parameters
             constant(
                    COL
                                                              /* Collating field. This field must be unique across
                                                              /* all entries in this database.
                                                              /* Counters
                 ) equals (((NFB$C_DB_XS5a24)+(NFB$C_TYP_STRa16)+64)) increment 1 prefix NFB$C_X tag S5;
```

```
/* X.25 destination parameters (part of MODULE X25-SERVER)
                                                  /* Define a field identifier index for each parameter in the XD5 database.
                                                  /+
                                                  /*
                                                  /*
                                                       Boolean Parameters
constant(
    LCK /* Set if conditionally writable fields are not writable ) equals (((NFB$C_DB_XD5a24)+(NFB$C_TYP_BITa16)+1)) increment 1 prefix NFB$C_X tag D5;
                                                       "Longword" Parameters
constant(
                                                  /* Priority
      PRI
                                                  /* Subaddress range
/* (lower word = lower limit, upper word = upper limit)
    , SAD
                                                  /* Remote node address containing server (gateways only)
    ) equals (((NFB$C_DB_XD5a24)+(NFB$C_TYP_LNGa16)+16)) increment 1 prefix NFB$C_X tag D5;
                                                       String Parameters
constant(
                                                  /* Collating field. This field must be unique across
/* all entries in this database.
      COL
                                                  /* Destination DTE address
      CMK
                                                  /* Call mask
      CVL
                                                  /* Call value
      GRP
                                                  /* Group name
                                                  /* DTE number
      NUM
      OBJ
                                                  /* && Object name
      FIL
                                                  /* Command procedure to execute when starting object
                                                  /* User name
      USR
      PSW
                                                  /* Password
                                                  /* Account
      ACC
    ) equals (((NFB$C_DB_XD5a24)+(NFB$C_TYP_STRa16)+64)) increment 1 prefix NFB$C_X tag D5;
```

N

```
/* X.29 server parameters (global parameters for all destinations)
                                                Define a field identifier index for each parameter in the XS9 database.
                                                  Boolean Parameters
constant(
                                             /* Set if conditionally writable fields are not writable
    ) equals (((NFB$C_DB_XS9@24)+(NFB$C_TYP_BIT@16)+1)) increment 1 prefix NFB$C_X tag S9;
                                                  'Longword' Parameters
constant(
                                             /* Maximum circuits allowed
      MCI
     STA
                                             /* State
    , ACI
                                             /* Active circuits
      CTM
                                             /* Counter timer
    ) equals (((NFB$C_DB_XS9a24)+(NFB$C_TYP_LNGa16)+16)) increment 1 prefix NFB$C_X tag S9;
                                                  String Parameters
constant(
      COL
                                             /* Collating field. This field must be unique across
                                             /* all entries in this database.
   /* Counters
) equals (((NFB$C_DB_XS9a24)+(NFB$C_TYP_STRa16)+64)) increment 1 prefix NFB$C_X tag S9;
```

```
/* X.29 destination parameters (part of MODULE X29-SERVER)
                                                  /* Define a field identifier index for each parameter in the XD9 database.
                                                  /*
                                                        Boolean Parameters
constant(
    LCK /* Set if conditionally writable fields are not writable equals (((NFB$C_DB_XD9a24)+(NFB$C_TYP_BITa16)+1)) increment 1 prefix NFB$C_X tag D9;
                                                        'Longword' Parameters
constant(
      PRI
                                                  /* Priority
                                                  /* Subaddress range
/* (lower word = lower limit, upper word = upper limit)
    , SAD
    NOD
/* Remote node address containing server (gateways only)
) equals (((NFB$C_DB_XD9@24)+(NFB$C_TYP_LNG@16)+16)) increment 1 prefix NFB$C_X tag D9;
                                                  /*
                                                        String Parameters
constant(
                                                  /* Collating field. This field must be unique across
      COL
                                                  /* all entries in this database.
                                                  /* Destination DTE address
      CMK
                                                  /* Call mask
     CVL
                                                  /* Call value
     GRP
                                                  /* Group name
     , NUM
                                                  /* DTE number
      OBJ
                                                  /* && Object name
     FIL
                                                  /* Command procedure to execute when starting object
      USR
                                                  /* User name
    , PSW
                                                  /* Password
                                                  /* Account
    j equals (((NFB$C_DB_XD9a24)+(NFB$C_TYP_STRa16)+64)) increment 1 prefix NFB$C_X tag D9;
```

/* Trace file name

j equals (((NFB\$C_DB_XTIa24)+(NFB\$C_TYP_STRa16)+64)) increment 1 prefix NFB\$C_X tag TI;

COL

/* Collating field. This field must be unique across
/* all entries in this database.

```
/* X.25 Access (qualified by a given network)
                                                  /* Define a field identifier index for each parameter in the XAI database.
                                                       Boolean Parameters
constant(
    LCK /* Set if conditionally writable fields are not writable equals (((NFB$C_DB_XAIa24)+(NFB$C_TYP_BITa16)+1)) increment 1 prefix NFB$C_X tag AI;
                                                       "Longword" Parameters
constant(
    NDA /* Node address
) equals (((NFB$C_DB_XAIa24)+(NFB$C_TYP_LNGa1ú)+16)) increment 1 prefix NFB$C_X tag AI;
                                                       String Parameters
constant(
                                                  /* Collating field
                                                  /* Network
                                                  /* User id
                                                  /* Password
      ACC
                                                  /* Account
                                                  /* Node id
    j equals (((NFB$C_DB_XAIa24)+(NFB$C_TYP_STRaio)+64)) increment 1 prefix NFB$C_X tag AI;
```

```
Define SPI (Server Process) parameters
                                                       /*
                                                             Boolean Parameters
constant(
       LCK
                                                      /* Set if conditionally writable fields are not writable
/* Proxy flag which initially started server process
       PRL
    ) equals (((NFB$C_DB_SPI@24)+(NFB$C_TYP_BIT@16)+1)) increment 1 prefix NFB$C_S tag PI;
                                                             Longword Parameters
constant(
       PID
                                                       /* Server PID
    , IRP
                                                      /* IRP of waiting DECLSERV QIO (0 if process active)
/* Channel associated with DECLSERV IRP
    , CHN
       RNA
                                                       /* Remote node address which initially started server
    ) equals (((NFB$C_DB_SPI@24)+(NFB$C_TYP_LNG@16)+16)) increment 1 prefix NFB$C_S tag PI;
                                                             String Parameters
constant(
       COL
                                                      /* Collating field
                                                      /* ACS used to initally start server process
/* Remote user ID which initially started server
/* Last (current) SFI given to server process
    , SFI
    NCB
                                                      /* Last (current) NCB given to server process
       PNM
                                                       /* Last (current) process name given to server
    pequals (((NFB$C_DB_SPI@24)+(NFB$C_TYP_STR@16)+64)) increment 1 prefix NFB$C_S tag PI;
```

```
Define AJI (Adjacency) parameters
                                                          / t
                                                                Boolean Parameters
constant(
                                                          /* Set if conditionally writable fields are not writable
/* Reachable (set if two-way communication established)
       LCK
        REA
     ) equals ((('FB$C_DB_AJI@24)+(NFB$C_TYP_BIT@16)+1)) increment 1 préfix NFP$C_A tag JI;
                                                          /*
                                                                Longword Parameters
constant(
       ADD
                                                          /* Node address
       TYP
                                                          /* Node type
    LIT /* Lister timer for this adjacency
, BLO /* Partner's block size
, RPR /* Partner's router priority (on NI)
) equals (((NFB$C_DB_AJIa24)+(NFB$C_TYP_LNGa16)+16)) increment 1 prefix NFB$C_A tag JI;
                                                          /*
                                                                String Parameters
constant(
       COL
                                                          /* Collating field
     , NNA
                                                          /* Node name
       CIR
                                                          /* Circuit name
     ) equals (((NFB$C_DB_AJI@24)+(NFB$C_TYP_STR@16)+64)) increment 1 prefix NFB$C_A tag JI;
```

1

```
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NETUSR.SDL:1
                                                                   Define the AREA database (read only) for level 2 Phase IV routers only.
                                                                 /*
                                                                 /*
                                                                      Boolean parameters
              constant(
                     LCK
                                                                /* Set if conditionally writable fields are not writable
/* Set if node is reachable
                     REA
                   pequals (((NFB$C_DB_ARI@24)+(NFB$C_TYP_BIT@16)+1)) increment 1 prefix NFB$C_A tag RI;
                                                                      'Longword' Parameters
              constant(
                     ADD
                                                                 /* Address
                    DCO
                                                                 /* Destination Cost
                   , DHO
                                                                 /* Destination Hops
                     NND
                                                                 /* Next node address
                  ) equals (((NFB$C_DB_ARI@24)+(NFB$C_TYP_LNG@16)+16)) increment 1 prefix NFB$C_A tag RI;
                                                                /+
                                                                      String parameters
              constant(
                  COL /* Collating field

DLI /* Circuit used for normal traffic to area

Pequals (((NFB$C_DB_ARI@24)+(NFB$C_TYP_STR@16)+64)) increment 1 prefix NFB$C_A tag RI;
         end STR_COUNT_FIELDS;
end NFBDEF4;
end_module $NFBDEF;
module $DRDEF;
```

```
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      NETUSR.SDL:1
      /* DISCONNECT REASONS
constant DR_NORMAL equals 0 prefix NET tag $C; constant DR_RSU equals 1 prefix NET tag $C; constant DR_NONODE equals 2 prefix NET tag $C; constant DR_NOBJ equals 3 prefix NET tag $C; constant DR_FMT equals 5 prefix NET tag $C; constant DR_BUSY equals 6 prefix NET tag $C; constant DR_PROTCL equals 7 prefix NET tag $C; constant DR_THIRD equals 8 prefix NET tag $C; constant DR_THIRD equals 
                                                                                                                                                                       /* NO ERROR (SYNCH DISCONNECT)
                                                                                                                                                                       /* COULDN'T ALLOCATE UCB ADDRESS
                                                                                                                                                                     /* Unrecognized node name
/* NODE OR LINE SHUTTING DOWN
                                                                                                                                                                      /* UNKNOWN OBJECT TYPE OR PROCESS
                                                                                                                                                                      /* ILLEGAL PROCESS NAME FIELD
                                                                                                                                                                     /* Object too busy
/* GENERAL PROTOCOL ERROR
/* THIRD PARTY DISCONNECT
                                                                          equals 9
     constant DR ABORT
                                                                                                       prefix NET tag $C;
                                                                                                                                                                      /* DISCONNECT ABORT
                                                                         equals 9
equals 21
equals 23
equals 23
equals 34
equals 35
equals 36
equals 37
equals 38
equals 39
                                                                                                      prefix NET tag $C:
prefix NET tag $C:
    constant DR_IVNODE constant DR_NONZ
                                                                                                                                                                     /* Invalid node name format
/* NON-ZERO DST ADDRESS
                                                                                                         prefix NET tag $C:
prefix NET tag $C:
prefix NET tag $C:
prefix NET tag $C:
    constant DR_BADLNK
                                                                                                                                                                      /* INCONSISTENT DSTLNK
     constant DR_ZERO
                                                                                                                                                                      /* ZERO SOURCE ADDRESS
     constant DR_BADFC
                                                                                                                                                                      /* FCVAL ILLEGAL
                                                                                                                                                                      /* NO CONNECT SLOTS AVAILABLE
     constant DR_NOCON
                                                                                                          prefix NET tag $C;
                                                                                                                                                                       /* INVALID ACCESS CONTROL
     constant DR_ACCESS
     constant DR_BADSRV
                                                                                                          prefix NET tag $C:
                                                                                                                                                                       /* LOGICAL LINK SERVICES MISMATCH
    constant DR_ACCNT
constant DR_SEGSIZ
constant DR_EXIT
                                                                                                          prefix NET tag $C;
                                                                                                                                                                      /* INVALID ACCOUNT INFORMATION
                                                                                                          prefix NET tag $C:
                                                                                                                                                                      /* SEGSIZE TOO SMALL
                                                                                                          prefix NET tag $C:
                                                                                                                                                                      /* USER EXIT OR TIMEOUT
     constant DR_NOPATH
                                                                                                          prefix NET tag $C:
                                                                                                                                                                      /* NO PATH TO DESTINATION NODE
     constant DR_LOSS
                                                                          equals 40
                                                                                                         prefix NET tag $C:
                                                                                                                                                                      /* LOSS OF DATA HAS OCCURRED
    constant DR_NOLINK constant DR_CONF
                                                                          equals 41
                                                                                                         prefix NET tag $C;
                                                                                                                                                                      /* ILLEGAL MSG FOR LINK NOLINK STATE
                                                                         equals 42 prefix NET tag $C; equals 43 prefix NET tag $C;
                                                                                                                                                                     /* REAL DISCONNECT CONFIRM
     constant DR_IMLONG
                                                                                                                                                                   /* IMAGE DATA FIELD TOO LONG
     end_module $DRDEF;
```

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